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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,506	10/27/2003	Ching Wen Cheng	08954.0011	2229
22852	7590	08/10/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			VU, PHU	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/693,506

Applicant(s)

CHENG, CHING WEN

Examiner

Phu Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 5/6/2005 have been fully considered but they are not persuasive. Applicant argues that the reference fails to show ever element of the claim such as the tank applying opaque material on the pixel electrode. However the limitation on does not imply any sort of direct contact as the limitation on can be met by merely applying over which the references show.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Saruta et al US Patent No 6035526.**

**Regarding claims 1-9,** Saruta teaches a device for repairing a liquid crystal display comprising an applicator (figure 23A element 92) for being precisely positioned on the defective area, and a tank for containing the opaque material for being precisely positioned on the defective pixel electrode, and a tank for applying the opaque material (figure 14 element 94), wherein the applicator applies the opaque material on the defective pixel electrode of the liquid crystal display (figure 12).

**Regarding claims 2 and 3,** the reference teaches a needle with a flat top for being in contact with the defective area (see figure 23A element 92).

**Regarding claim 4**, the reference teaches the needle applying the opaque material on the defective area by getting in contact with the defective area (see figure 12C and 12G and figure 13 steps 5 and 7)

**Regarding claim 5**, the reference teaches a method for repairing a liquid crystal device, comprising the steps of: providing an applicator with an opaque material positioning the applicator on the defective area; and moving the applicator for getting in contact with the defective area such that the opaque material is applied on the defective area (see column 8 lines 7-27).

**Regarding claim 6**, the reference teaches a tank provided (figure 14 element 94), and a step of immersing the needle in opaque material (see figure 16).

**Regarding claims 7 and 8**, the reference discloses an applicator that is a needle with a flat top for contacting the defective area (figure 23A element 92).

**Regarding claim 9**, the reference teaches an array test for identifying defect areas (see figure 13 step 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruta 6035526 and further in view of Furuhashi US Patent No. 5926161.**

**Regarding claim 10,** Saruta discloses an LCD with a defective pixel electrode, and opaque material applied on the defective pixel electrode on the TFT substrate (see figure 12G). Saruta fails to disclose a LCD comprising a TFT, having a plurality of scan lines, a plurality of data lines a plurality of pixel electrodes, and a plurality of TFTs individually electrically connected to scan lines, the data lines and pixel electrodes however these limitations are merely a part of the structure to be fixed. Furuhashi discloses a conventional liquid crystal display with scan lines, data lines, pixel electrodes, and TFTs individually connected to the scan and data lines and data electrodes and pixel electrodes (column 1 lines 11-61). Conventionality has associated benefits as low-costs, ready availability, and known implementations and most common. Therefore, at the time of the invention it would have been obvious to apply Sarutas fixing technique to a conventional LCD as they are the most readily available and prolific.

**Regarding claims 11- 12,** the reference does show the opaque material formed hardened light-curing and formed as a dark dots figure 12G).

**Regarding claim 13,** the reference does explicitly state the material has high adhesion to prevent peeling, however the reference does show ink, which can be considered highly adhesive.

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**Regarding claim 14**, the primary reference does show an array test (figure 12A).

**Regarding claim 15**, the reference shows an external applicator (see 23A element 92).

**Regarding claims 16-17**, the reference shows an opaque material applied on the defective pixel electrode. The limitation "formed as a dark dot" is also met by the reference as once an opaque material is applied on the pixel it will appear as a dark dot after the opaque material is applied.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871



**DUNG T. NGUYEN**  
**PRIMARY EXAMINER**